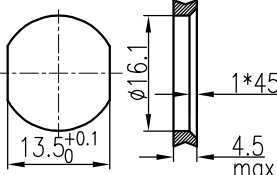
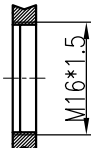
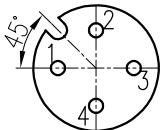
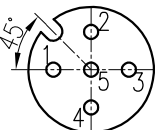
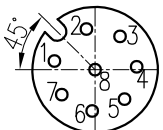
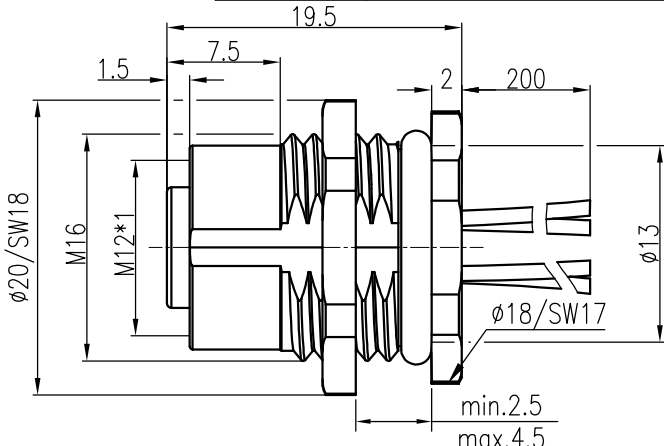


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------|--|-----------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|------------------------------------|--|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------|--|
| 日期/Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | 图样员<br>Drawing Clerk |  | 1                                                                                 |  | 2                                                                                 |  | 3                                  |  | 4                                                                                   |  | 5                                                                                   |  | 6                                                                                                |  |
| 技术参数:<br>- 产品系列: M12 A-Code<br>- 插针数: 4、5、8<br>- 额定电流(40℃): 4A(4\5-pole)、<br>2A(8-pole)<br>- 额定电压: 250V(4-pole)、<br>125V(5-pole)、<br>60V(8-pole)<br>- 额定脉冲电压: 2500V(4-pole)、<br>1500V(5-pole)、<br>800V(8-pole)<br><br>- 污染等级: 3<br>- 接触电阻: <10mΩ<br>- 绝缘电阻: >100MΩ<br>- 锁紧方式: 螺纹式M12*1<br>- 连接方式: 预接导线0.25mm <sup>2</sup><br>(AWG24)<br><br>- 防护等级: IP67<br>- 插拔次数: >100<br>- 温度范围: -40℃ ... +85℃<br>- 外壳材料: 铸锌镍<br>- 插体材料: PA<br>- 插针材料: 铜合金<br>- 插针电镀材料: 金<br>Technical specification:<br>- Series: M12 A-Code<br>- Number of contacts: 4、5、8<br>- Rated current (40℃): 4A(4\5-pole)、<br>2A(8-pole)<br>- Rated voltage: 250V(4-pole)、<br>125V(5-pole)、<br>60V(8-pole)<br>- Rated impulse voltage: 2500V(4-pole)、<br>1500V(5-pole)、<br>800V(8-pole)<br><br>- Pollution degree: 3<br>- Contact resistance: <10mΩ<br>- Insulation resistance: >100MΩ<br>- Connector locking system: screw M12*1<br>- Terminal: dip single-strand wires 0.25mm <sup>2</sup> (AWG24)<br><br>- Degree of protection: IP67<br>- Mating cycles: >100<br>- Temperature range: -40℃ ... +85℃<br>- Material of housing: Zinc diecasting nickel plated<br>- Material of insert: PA<br>- Material of contact: copper alloy<br>- Contact plating: Au |  |                      |  | 面板安装尺寸<br>Panel Cut-out                                                           |  | 针位图<br>Contact<br>arrangements                                                    |  | 4-Pole                             |  | 5-Pole                                                                              |  | 8-Pole                                                                              |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  | 通孔安装<br>With bore hole                                                            |  |                                                                                   |  | 螺纹安装<br>With thread to<br>screw in |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |  |  |  |  | 接线图<br>Circuit<br>diagram          |  |  |  |  |  |               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  | 比例/scale 1:1                                                                      |  | 比例/scale 1:1                                                                      |  |                                    |  | 1 棕色brown<br>2 白色white<br>3 蓝色blue<br>4 黑色black                                     |  | 1 棕色brown<br>2 白色white<br>3 蓝色blue<br>4 黑色black<br>5 灰色grey                         |  | 1 白色white<br>2 棕色brown<br>3 绿色green<br>4 黄色yellow<br>5 灰色grey<br>6 粉色pink<br>7 蓝色blue<br>8 红色red |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  |                                    |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      |  |                                                                                   |  |                                                                                   |  | </                                 |  |                                                                                     |  |                                                                                     |  |                                                                                                  |  |